8. [Original] The method of claim 7, wherein the different types of proteases are utilized sequentially.

9. [Original] The method of claim 5, wherein different types of cellulases are utilized.

10. [Original] The method of claim 9, wherein different types of cellulases are utilized sequentially.

11. [Currently Ammended] The methods of **any of the** claims 5-10, further comprising the step of utilizing the characterization of cotton fibers according to the methods to develop biochemical markers for fibers of different cotton ~~varieties~~ **cultivars**.

12. [Currently Ammended] The method of **any of the** claims **5-10**~~11~~, wherein the biochemical markers are used in plant breeding to improve fiber quality.

13. [Currently Ammended] The method of **any of the** claims **5-10** ~~11~~, wherein the biochemical markers are used as a means to distinguish ~~varieties~~ **cultivars** of cotton.

1. With respect to claims 1-3, the extrapolation from Murray(WO 99/35491) to the present claims is very tenuous at best. We know the glycan oligomers contain glucose most likely in a ß-1,4 linkage due to the degradation by endo-ß-1,4-glucanase. The assumption of Murray is that these oligomers contain one

2. [Original] The method of claim 1, wherein the chemical reagent is a carbodiimide.

3. [Original] The method of claim 1, wherein the chemical reagent forms amide bonds.

4. [Original] A method of enzymatically degrading cotton fibers to yield essentially pure cellulose comprising the steps of sequentially treating the fibers first with cellulase and then with protease.

5. [Original] A method of characterizing cotton fiber cell walls comprising the steps of specific enzyme degradation in sequential steps utilizing cellulases and proteases.

6. [Original] The method of claim 5, wherein the cellulases are utilized at different pH's to accentuate differences between cotton fibers of different varieties.

7. [Original] The method of claim 5, wherein different types of proteases are utilized.